# OPTICAL FABRICATION UNIT

Equipment Support and Consumables Handbook 6545-01-525-7095
UA 003A
LIN N22073
REVISED

April 2007 U.S. Army Medical Materiel Agency The information contained in this manual was prepared by the U.S. Army Medical Materiel Agency, Materiel Acquisition Directorate, Ancillary Care Division, Fort Detrick, MD

This manual is still in draft form and may contain inaccuracies. To report inaccuracies or additions, please contact 301-619-4301/4316, DSN 343-4301/4316, or at <a href="mailto:USAMMACRM@amedd.army.mil">USAMMACRM@amedd.army.mil</a> Responses may also be mailed to:

Commander U.S. Army Medical Materiel Agency MCMR-MM0-AC 1423 Sultan Drive, Suite 100 Fort Detrick, MD 21702-5001 NOTE: CLICK ON TITLE FOR DIRECT LINK

## TABLE OF CONTENTS

SECTION NO.	<u>DEVICE</u>	<u>NSN</u>	PAGE NO.
1	AIR COMPRESSOR WITH 2 GALLON TANK	(L) 4310-01-460-0072	1
2	BLOCKING UNIT OPHTHALMIC LENS	(L) 6540-01-452-0218	3
3	EDGING MACHINE AUTOMATIC BEVELING	(Y) 6540-00-116-5780	5
4	LENS MEASURING INSTRUMENT OPHTHALMIC	(J) 6540-00-181-8037	7
5	LENS TINTING INSTRUMENT TURBO TINTER 2	(L) 6540-01-525-5213	9
6	POWER SUPPLY SMART-UPS 1400	(L) 6130-01-451-3810	11

#### AIR COMPRESSOR WITH 2 GALLON TANK TOC

### Distributed by: VAN AIR & HYDRAULICS INC

Manufactured by: GAST MODEL #: ROA P260T-AA

Distributor's PHONE: (856) 779-7300 FAX: (856) 779-8507 Manufacturer's PHONE: (269) 926-6171 FAX: (269) 925-8288

Website: http://www.vanairhydraulic.com/

Website: <a href="http://www.gastmfg.com/pdf/tankunits/2Gallon-tanksyst.pdf">http://www.gastmfg.com/pdf/tankunits/2Gallon-tanksyst.pdf</a>

#### AAC "L" ITEM NSN 4310 01-460-0072

**UA's: 4003** 

USAMMA POC: Materiel Acquisition Directorate, 301-619-7403, DSN 343-7403

**UNIT PRICE: \$886.87** 

**System Description:** This is an Air compressor with 2 gallon tank. The operator/maintenance manual is on their website under service manual – ROA Rocking Piston Vacuum pumps and compressors.



AIR COMPRESSOR WITH 2 GALLON TANK Model # ROA P260T-AA

# AIR COMPRESSOR WITH 2 GALLON TANK PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Height	18 inches
	Width	8 inches
	Depth	19 inches
	Cube	1.583 cu ft
Shipping Weight		39 lbs
<b>Operating Temperature Range</b>		32° F to104° F
<b>Storage Temperature Range</b>		32° F to104° F (65 °F opt)
Relative Humidity (in use)		38% - 40%
Relative Humidity (storage)		38% - 40%
Power Requirements		115Volts/60 Hz
Amps		16 amps
Watts		1840 watts

# AIR COMPRESSOR WITH 2 GALLON TANK ACCESSORIES AND CONSUMABLES (START-UP) PACKAGE

NSN	Notes	Nomenclature	PN	QTY	UI	Unit Price	Total Price	MFG	Shelf Life, months	Refrig	CONUS Ship Time, weeks
		Filter	B3448	1	EΑ	\$1.00	\$1.00	GAST MFG	N/A	N	3
7610015437003	Included w/NSN	Operator/Maintenance Manual	70-5300G481PL	2	EΑ	Free	Free	GAST MFG	N/A	N	3

## BLOCKING UNIT OPHTHALMIC LENS HIGH SPEED LAY OUT ADH BLOCKS TOC

#### AIT INDUSTRIES MODEL #:01001AIT

Manufacturer's PHONE: (630) 595-1005 FAX: (904) 642-9338 Website:

http://www.aitindustries.com/product.php?prd id=8&cat display=Blockers

#### AAC "L" ITEM NSN 6540-01-452-0218

**UA's: 4003** 

USAMMA POC: Materiel Acquisition Directorate, 301-619-7403, DSN 343-7403 UNIT PRICE: \$1,099.02

**System Description**: This is a high speed blocking unit, for use to layout and attaches adhesive blocks in optical fabrication. It features horizontal decentration and enlarged viewing screen for viewing and blocking make the speed even better than before.

#### **Features Include:**

- Comfortable viewing angle.
- Eliminates parallax and seg distortion with binocular reflection viewing.
- Unique horizontal and vertical alignment adjustments.
- Intelligently designed front loading for ease of use.
- Adapters available for most blocking systems.
- Fast lever motion presses block exactly on target.
- Eliminates layout marking.



Blocking Unit Model #: 01001AIT

## BLOCKING UNIT PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Height	16.5 inches
	Width	8.5 inches
	Depth	12 inches
	Cube	0.973 cu ft
Weight		25 lbs
<b>Operating Temperature Range</b>		Not available
<b>Storage Temperature Range</b>		Not available
Relative Humidity (in use)		Not available
Relative Humidity (storage)		Not available
Power Requirements		120/220 Volts 50/60 Hz
Amps		2.5 amps
Watts		550 watts

# BLOCKING UNIT ACCESSORIES AND CONSUMABLES (START-UP) PACKAGE

NSN	Notes	Nomenclature	PN	ОТҮ	III	Unit Price	Total Price	MFG	Shelf Life, months	Refrig	CONUS Ship Time, weeks
	Included w/NSN		A01702					AIT Industries	NA	N	3
7610015437003	Included w/NSN	Operator Manual	7424	2	ΕA	\$15.00	\$15.00	AIT Industries	N/A	N	3
	Not Applicable	Maintenance Manual		2	EA				N/A	N	3

#### **BLOCKING UNIT (OPTIONAL ITEMS)**

					Unit	Total		Shelf Life,	Refrig	CONUS Ship Time,
NSN	Nomenclature	PN	QTY	UI	Price	Price	MFG	months		weeks
	Semi-tech Adapter	801704	1	ΕA	\$82.80	\$82.80	AIT Industries	NA	N	3
	Weco-Vario Adapter	07155	1	ΕA	\$111.00	\$111.00	AIT Industries	N/A	N	3

#### EDGING MACHINE OPHTHALMIC LENS AUTOMATIC BEVELING TOC

#### NATIONAL OPTRONICS INC MODEL #: HORIZON II

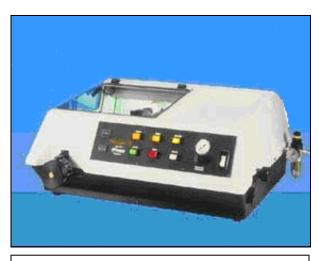
Manufacturer's PHONE: (434) 295-9126 FAX: (434) 295-7799 Website: http://www.nationaloptronics.com/htm/p.hII.htm

#### AAC "J" ITEM NSN 6540-01-417-7952

**UA's: 4003** 

USAMMA POC: Materiel Acquisition Directorate, 301-619-7403, DSN 343-7403 UNIT PRICE: \$10,400.00

System Description: This is an edging machine that cuts all shapes, sizes and powers of CR-39, Polycarbonate and Hi-Index lenses without changing cutters. The carbide blades cut instead of grind, so there is no rounding of the bevel. The standard cycle time is less than one minute, with a 20 second finish-only cycle for touch-up. Even the largest Poly lenses can be edged in a single cycle with a slower flow control cycle. The plastic debris is removed by a vacuum system, eliminating the need for coolants. As factory equipped, the edger will cut bevel and rimless interchangeably. Optional cutters expand edge peripheries to a dozen finishes, including Grooving, Faceting, Shelving and Roll & Bevel. Fully integrated circuitry eliminates microswitch adjustment, ensuring high reliability. The two fully-adjustable bevel guide systems are standard: A Teflon Guide Wheel which tracks the actual front curve of the lens or a Cam Tracking System which duplicates nominal base curves. Both systems provide for fully variable front-to-back placement on all periphery finishes. Each system features a cycle-pause feature which allows the operator to easily make bevel placement adjustment mid-cycle. The DC, brushless motor is ultra quiet and more durable than conventional router motors.



Edging Machine
Model #: HORIZON II BEVEL EDGER

# EDGING MACHINE PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Height	12 inches
	Width	30 inches
	Depth	24 inches
	Cube	4.152 cu ft
Weight		112 lbs
<b>Operating Temperature Range</b>		45°F to 110°F
<b>Storage Temperature Range</b>		35°F to 110°F
Relative Humidity (in use)		5% to 95% non condensing
Relative Humidity (storage)		5% to 95% non condensing
Power Requirements		115 VAC 60 Hz
Amps		13 amps
Watts		1725 watts
Air		80 psi, min

## EDGING MACHINE ACCESSORIES AND CONSUMABLES (START-UP) PACKAGE

NSN	Notes	Nomenclature	PN	ОТҮ	UI	Unit Price	Total Price	MFG	Shelf Life, months	Refrig Y/N	CONUS Ship Time, weeks
	Included w/NSN	VACUUM SYSTEM	87120		EA	\$289.40		NATIONAL OPTRONICS	N/A	N	4-6 wks
		ACCESSORY KIT Includes the cutter and 5 vacuum bags		1	KT	\$286.00		NATIONAL OPTRONICS	N/A	N	4-6 wks
7610015437003		OPERATOR/ MAINT MANUAL	87275	2	EA	\$29.50		NATIONAL OPTRONICS	N/A	N	4-6 wks

## **EDGING MACHINE (RE-SUPPLY)**

NSN	Nomenclature	PN	ОТҮ	UI	Unit Price	Total Price	MFG	Shelf Life, months	Refrig	CONUS Ship Time, weeks
	CUTTERS, DISPOSABLE			10 PG	\$114.79	\$114.79	NATIONAL OPTRONICS			4-6 wks
	VACUUM BAG	90145	1	10 PG	\$36.40	\$36.40	NATIONAL OPTRONICS	N/A	N	4-6 wks

#### LENS MEASURING INSTRUMENT OPHTHALMIC TOC

#### MARCO OPHTHALMIC INC MODEL #: 4004

Manufacturer's PHONE: (904) 642-9330 FAX: (904) 642-9338

Website: <a href="http://www.marco.com/home.html">http://www.marco.com/home.html</a>

#### AAC "J" ITEM NSN 6540-00-181-8037

UA's: 4003, N315

USAMMA POC: Materiel Acquisition Directorate, 301-619-7403, DSN 343-7403

**UNIT PRICE: \$1,099.02** 

**System Description**: The Marco Lensmeter 101, like all Marco lensmeters, is well suited for measuring soft and hard contact lenses as well as conventional spectacle lenses. The Marco Lensmeter 101 is a compact deluxe model with a full 90-degree inclination, which facilitates the measurement of contact lenses when used in the vertical position. Standard equipment on the 101 includes such deluxe features as a prism compensator, external power and axis readings, and an American-style cross-line target. The oversized lens table permits the measurement of conventional lenses from 30 to 90 mm in diameter. The instrument is well suited for laboratory or office use.



Lens Measuring Instrument Model # 4004

# LENS MEASURING INSTRUMENT PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Height	9 inches
	Width	7 inches
	Depth	18.5 inches
	Cube	0.674 cu ft
Weight		14 lbs
<b>Operating Temperature Range</b>		50° F to 95° F
Storage Temperature Range		50° F to 104° F
Relative Humidity (in use)		30-75% non-condensing
Relative Humidity (storage)		30-85% Dust Free
Power Requirements		115 Volts/60 Hz
Amps		1 amps
Watts		25 watts

# LENS MEASURING INSTRUMENT (START-UP)

NSN	Notes	Nomenclature	PN	QTY	UI	Unit Price	Total Price	MFG	Shelf Life, months	Refrig	CONUS Ship Time, weeks
6540001818037		Lens Measuring Instrument	4004	1	EA	\$1,099.02	\$1,099.02	Marco Ophthalmic Inc	N/A	N	3
6540015499041		Cable Assembly	L75-00E4	1		Included w/ 8037 NSN		Marco Ophthalmic Inc	N/A	N	3
6540015499049		Ink Pad	4009	1		Included w/ 8037 NSN		Marco Ophthalmic Inc	N/A	N	3
6540015499055		Lamps, Clear 120V 25W	4007	2			Included w/ 8037 NSN	Marco Ophthalmic Inc	N/A	N	3
		Operator Manual	Not available	2			Included w/ 8037 NSN	Marco Ophthalmic Inc	N/A	N	3
		Maintenance Manual	Not available	2			Included w/ 8037 NSN	Marco Ophthalmic Inc	N/A	N	3

# LENS MEASURING INSTRUMENT (RESUPPLY)

NSN	Nomenclature	PN	QTY	UI	Unit Price	Total Price	MFG	Shelf Life, months	Refrig	CONUS Ship Time, weeks
6540015499041	Cable Assembly	L75-00E4	1	EA	\$20.27	\$20.27	Marco Ophthalmic Inc	N/A	N	3
6540015499049	Ink Pad	4009	1	EA	\$4.48	\$4.48	Marco Ophthalmic Inc	N/A	N	3
6540015499055	Lamps, Clear 120V 25W	4007	2	EA	\$7.00	\$14.00	Marco Ophthalmic Inc	N/A	N	3
	Operator Manual	Not available	2	EA	Free	Free	Marco Ophthalmic Inc	N/A	N	3
	Maintenance Manual	Not available	2	EA	Free	Free	Marco Ophthalmic Inc	N/A	N	3

#### LENS TINTING INSTRUMENT TURBO TINTER 2 TOC

## BRAIN POWER INCORPORATED MODEL #: 9805

Manufacturer's PHONE: (305) 264-4465 FAX: (305) 264-1467 Website: <a href="http://www.callbpi.com/htm\_cat/turbo.htm">http://www.callbpi.com/htm\_cat/turbo.htm</a>

#### AAC "L" ITEM NSN 6540-01-525-5213

**UA's: 4003** 

USAMMA POC: Materiel Acquisition Directorate, 301-619-7403, DSN 343-7403

**UNIT PRICE: \$4,667.00** 

**System Description**: This item has dual tanks, microprocessor temperature monitoring and automatic solution mixing, it holds two 1.5 quart beakers and has two receptacle for gradients. It tints high index, hard coats and polycarbonate lenses better and faster than conventional systems. The lenses are heated by IR light from the ceramic heating chambers. This method of heating causes the surface of the lenses to be heated higher than boiling point allowing better and more even tint penetration. The tint solution is kept in constant motion by the stirring mechanism. The computer maintains a steady temperature ( $\pm 2^{\circ}$ ) in each tank. It comes with BPI Lens Prep II, Material Safety Data Sheet Booklet, PBI Dual Lens Holder, Thermometer, 2 Magnetic stirring Rods, 2 perforated stirring rod covers, and 2 beakers, made of stainless steel.



TURBO TINTER 2 Model # 9805

# LENS TINTER 2 PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Height	12 inches
	Width	<b>15.25 inches</b>
	Depth	13.5 inches
	Cube	1.429 cu ft
Weight		45 lbs
<b>Operating Temperature Range</b>		32° F to 104° F
Storage Temperature Range		4° F to 158° F
Relative Humidity (in use)		0% to 92%
Relative Humidity (storage)		0% to 92%
Power Requirements		110 Volts/60 Hz
Amps		20 amps
Watts		<b>2000</b> watts

## LENS TINTER 2 ACCESSORIES AND CONSUMABLES (START-UP) PACKAGE

NSN	Notes:	Nomenclature	PN	QTY	UI	Unit Price	Total Price	MFG	Shelf Life, months	Refrig Y/N	CONU S Ship Time, weeks
	Included w/NSN	BPI Lens Prep II	70200	1	EA	\$11.95	\$11.95	Brain Power Inc	N/A	N	3
	Included w/NSN	BPI Dual Lens Holder	9600	1	EΑ	\$22.95	\$22.95	Brain Power Inc	N/A	N	3
	Included w/NSN	BPI LabThermometer	59800	1	EA	\$14.95	\$14.95	Brain Power Inc	N/A	N	3
	Included w/NSN	BPI Magnetic Stirring Rods	99910	2	ΕA	13.95	\$27.90	Brain Power Inc	N/A	N	3
	Included w/NSN	BPI Plastic Stir Rod Covers	99911	2	ΕA	\$15.95	\$31.90	Brain Power Inc	N/A	N	3
	Included w/NSN	BPI 1.5 Liter Beakers	62203	2	EΑ	\$29.95	\$59.90	Brain Power Inc	N/A	N	3
		BPI Turbo Tinter Temperature Probe	60616	2	EA	\$57.95	\$115.90	Brain Power Inc	N/A	N	3
7610015437003	Included w/NSN	Operator Manual	999917	2	EA	Free	Free	Brain Power Inc	N/A	N	3
7610015436723	Included w/NSN	Maintenance Manual	999916	2	EA	Free	Free	Brain Power Inc	N/A	N	3

#### POWER SUPPLY SMART-UPS 1400 TOC

## AMERICAN POWER CONVERSION CORPORATION

MODEL #: SUA1500US

Manufacturer's PHONE: (401) 789-5735 FAX: (904) 642-9338 Website:

http://www.apc.com/resource/include/techspec\_index.cfm?base\_sku=SUA1500

#### AAC "L" ITEM NSN 6130-01-451-3810

**UA's: 4003** 

USAMMA POC: Materiel Acquisition Directorate, 301-619-7403, DSN 343-7403 UNIT PRICE: \$963.73

**System Description:** This power supply has six output receptacles, is a high speed blocking unit, for use to lay out and attach adhesive blocks in optical fabrication. It comes with CD software, Smart UPS signaling RS-232 cable, USB cable, and User Manual. It has an uninterruptible power supply that provides 1400 volt amps and 950 watts; transfer time 2-4 milliseconds with user adjustable transfer point. It recharges to 90% capacity in 1 to 2 hours. Applications are for: Servers, UNIX systems, and Multiple Servers.



Power Supply Smart -ups 1400 Front and Back Model # SUA 1500



**SUA Optional Battery** 





SUA SmartSlot

## POWER SUPPLY SMART-UPS 1400 PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

Dimensions	Height	8.5 inches
	Width	6.7 inches
	Depth	17.3 inches
	Cube	0.570 cu ft
Weight		53 lbs
<b>Operating Temperature Range</b>		32° F to 104° F
<b>Storage Temperature Range</b>		5° -113° F
Relative Humidity (in use)		0- 95% F
Relative Humidity (storage)		0 -95°% F
Power Requirements		120 Volts 50/60 Hz +/- 3 Hz (auto sensing)
Amps		8.16 amps
Watts		980 watts

## POWER SUPPLY SMART-UPS 1400 ACCESSORIES AND CONSUMABLES (START-UP) PACKAGE

									Shelf		CONUS Ship
						Unit	Total		Life,	Refrig	Time,
NSN	Notes	Nomenclature	PN	QTY	UI	Price	Price	MFG	months	Y/N	weeks
	Included with NSN	CD with software	SFPCBE705	1	EΑ	Free	Free	American Power	N/A	N	3
•	Included	Smart UPS Signaling	940-0024					American Power		N	3
	Included		940-0117B	1	EA	\$44.99	\$44.99	American Power	N/A	N	3
	Included with NSN	Operator Manual	990-1062A	2	EA	Free	Free	American Power	N/A	N	3
	Included with NSN	Maintenance Manual	OL232	2	ΕA	Free	Free	American Power	N/A	N	3

## POWER SUPPLY SMART-UPS 1400 ACCESSORIES AND CONSUMABLES OPTIONAL ITEMS

	NSN	Nomenclature	PN	ОТҮ	TIT	Unit Price	Total Price	MFG	Shelf Life, months	Refrig	CONUS Ship Time, weeks
ı	INDIN	Nomenciature	FIN	Q I I	ΟI	FIICE	FIICE	MFG	monus	1/19	WEEKS
	No NSN required	SUA Battery	RBC7	1	EΑ	\$129.99	\$129.99	American Power			
	No NSN required	SUA Battery	AP9607CB	1	EA	\$169.99	\$169.99	American Power			